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## ABSTRACT:

A special-purpose file system is provided which includes a combination of services and features which improve the performance of applications employing caches, such as caching web proxies. This file system also provides a file system cache which can be used as a general high-performance file system cache for file systems which need a cache. The services and features include collocating files together on a disk; keeping file meta-data in memory; compressing file names to hash values for reference; using a flat naming scheme for files; providing background daemons that pack files into clusters and clean disk and main memory space; and implementing a user-level library. The file system reduces access to related disk files, eliminates disk operations that are needed to maintain directory and meta-data information, and avoids multiple buffering of file data, and saves and efficiently manages disk and main memory space.